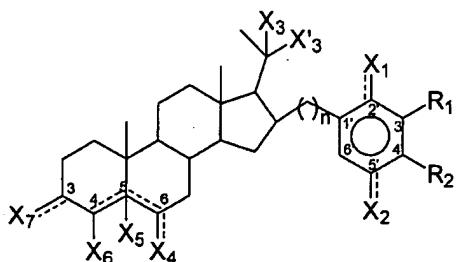


Amendments to the claims

1-3. (Cancelled)

4. (Currently amended) ~~The A compound according to claim 1 of formula I, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof,~~



formula I

wherein X₁, X₂, are -OMe; R₁ and R₂ are independently selected from the group consisting of hydrogen, hydroxyl, alkoxy, oxo and oxyalkyl,

wherein X₃ participates together with X'3 in an oxo functional group, or wherein X₃ and X'3 are independently selected from the group consisting of hydrogen, hydroxyl, oxyalkyl, oxycarbonyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, altroosyl, laminaribiosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxygalactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxymannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein X_4 and X_7 are independently selected from the group consisting of hydrogen, oxygen, oxo, hydroxyl, glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, altrosyl, laminaribiosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein at least one of X_3 , X'_3 , X_4 and X_7 is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl,mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanosyl, inosyl, N-acetylgalactosaminyl, mannotriosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octyribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl-lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacillosaminyl, boivinosyl, cellotriosyl, chacotriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalosyl, evernitrosyl, forosaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediaminyl,

Application No.: 10/582,121
Filing Date: June 8, 2006

fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycarosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, pururosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodosaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- α -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X₄ or X₆ are hydrogen and wherein X₅ participates in a double bond between the carbon atoms in position 4 and 5 or in position 5 and 6, and

wherein n is an integer between 0 and 2.

5. (Currently amended) The compound according to claim 14, stereoisomers, tautomers, racemics, ~~prodrugs, metabolites~~ thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁ and X₂ are -OMe, wherein R₁ and R₂ are -H, wherein X₃ is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, lactosyl,

maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxyglucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxygalactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₃' is selected from the group consisting of hydrogen, alkyl or aralkyl, wherein X₄ is hydrogen, wherein X₅ participates in a double bond between the carbon atoms in position 5 and 6, wherein X₆ is -H, wherein X₇ is selected from the group consisting of hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

6. (Currently amended) The compound according to claim 44, stereoisomers, tautomers, racemics, ~~prodrugs, metabolites~~ thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁ and X₂ are -OMe, wherein R₁ and R₂ are -H, wherein X₃ is selected from the group consisting of hydrogen, hydroxyl, oxyalkyl or oxycarbonyl, wherein X₃' is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, lactosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxyglucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxygalactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-Amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₄ is hydrogen, wherein X₅ participates in a double bond between the carbon atoms in position 5 and 6, wherein X₆ is -H, wherein X₇ is selected from the group consisting of hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

7. (Currently amended) The compound according to claim 44, stereoisomers, tautomers, racemics, ~~prodrugs, metabolites~~ thereof, or a pharmaceutically acceptable salt and/or solvate

thereof, wherein X_1 and X_2 are $-OMe$, wherein R_1 and R_2 are $-H$, wherein X_3 participates together with X'_3 in an oxo functional group, wherein X_4 is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X_5 participates in a double bond between the carbon atoms in position 4 and 5, wherein X_6 is $-H$, wherein X_7 is selected from the group consisting of hydrogen, oxygen, hydroxyl, alkyloxy or oxo, and wherein n is 0.

8. (Currently amended) The compound according to claim 14, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X_1 and X_2 are $-OMe$, wherein R_1 and R_2 are $-H$, wherein X_3 participates together with X'_3 in an oxo functional group, wherein X_4 is hydrogen, wherein X_5 participates in a double bond between the carbon atoms in position 5 and 6, wherein X_6 is $-H$, wherein X_7 is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof; and wherein n is 0.

9. (Currently amended) The compound according to claim 14, stereoisomers, tautomers, racemics, ~~prodrugs, metabolites~~ thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁ and X₂ are -OMe, wherein R₁ and R₂ are -H, wherein X₃ or X'₃ are independently selected from the group consisting of hydrogen or glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-Amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-α-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-β-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-β-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-β-D-glucosyl-D-galactosyl, 3'-Fucosyl-D-Lactosyl, 3'-Fucosyl-2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₄ is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, isomaltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-α-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-β-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-β-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-β-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₅ and X₆ participates in a double bond between the carbon atoms in position 4 and 5, wherein X₆ is -H, wherein X₇ is selected from the group consisting of hydrogen, oxygen, hydroxyl, alkoxy or oxo, wherein at least one of X₃ and X'₃ is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl, mmannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 2-Amino-2-deoxy-4-O-β-D-galactosyl-D-glucosyl, 6'-N-

Application No.: 10/582,121
Filing Date: June 8, 2006

acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3'-Fucosyl-D-Lactosyl, 3'-Fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₄ is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, isomaltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idesyl, gulcosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojiobiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltesyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sephoresyl, isesucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4 galactobiosyl, maltotriose, maltotetraose, isomaltotriose, maltopentaose, maltohexaose, maltoheptaose, sicosyl, panosyl, isopanose, inosyl, N-acetylgalactosaminyl, mannotriose, globotriose, erlosyl, neotrehalose, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl-glucosaminyl, octylglucopyranosyl, octylribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl lactosaminyl, acenosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarilosyl, bacillosaminyl, bovinosyl, cellobiosyl, chactriosyl, chalcosyl, cladinosyl, celitesyl, cymaresyl, daunesaminyl, desosaminyl, D-glycero L-gulo heptosyl, diginosyl, digitalesyl, digitoxesyl, evalosyl, evernitrosyl, furosaminyl, fucosaminyl, garesaminyl, hamamelosyl, isolevoglucosanenyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosediamicinyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminesyl, mycariosyl, mycinosyl,

~~mycosaminyl, neoviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpuresaminyl, quinovosaminyl, quinevosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodesaminyl, sarmentosyl, solatriosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- α -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranesyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl-lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D-isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamine, arylthio, aryloxyalkyl, arylaminealkyl, aralkoxy, alkylthio, alkoxyl, aryloxyalkoxy, arylaminealkoxy, aralkylamine, aryloxyalkylamine, arylaminealkylamine, arylthioalkoxy, arylthioalkylamine, aralkylthio, aryloxyalkylthio, arylaminealkylthio, arylthioalkylthio, alkylamine, cycloalkyl and cycloalkylalkyl and wherein n is 0.~~

10. (Currently amended) The compound according to claim 1, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁ and X₂ are -OMe, wherein R₁ and R₂ are -H, wherein X₃ or X'₃ are independently selected from the group consisting of hydrogen, glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-

D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₄ is hydrogen, wherein X₅ and X₆ participates in a double bond between the carbon atoms in position 5 and 6, wherein X₆ is -H, wherein X₇ is selected from the group consisting of glucosyl, fructosyl, galactosyl,mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein at least one of X₃ and X'₃ is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllectosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatoseyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idesyl, gulosyl, altrosyl, alloesyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl,

primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanoseyl, sepherosyl, isosucrosyl, raffinesyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotrioseyl, maltopentaosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panosyl, isopanoseyl, inesyl, N-acetylgalactosaminyl, mannosyl, globotriosyl, erlosyl, neotrehalosyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl glucosaminyl, octylglucopyranosyl, eetylribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylfuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl lactosaminyl, acosaminyl, amicosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, bacilosaminyl, boivinoseyl, celotriosyl, chactriosyl, chalcosyl, cladinosyl, colitosyl, cymarosyl, daunosaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalosyl, digitoxosyl, evalesyl, evernitrosoyl, forosaminyl, fucosaminyl, galactosaminyl, hamamelesyl, isolevoglucosenonyl, kanosaminyl, kansosaminyl, lactosaminyl, lactosidiaminyl, fucitolyl, maltulosyl, mannosaminyl, melezitosyl, mycaminosyl, mycareosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteosyl, pneumosaminyl, purpureosaminyl, quinovosaminyl, quinovosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodesaminyl, sarmenosyl, selatiosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl, 1,6-anhydro-D-glucopyranosyl, 1-hydroxy- α -D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl-lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D-isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxy, alkylexocarbonyl, carbonyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamine, arylthio,

aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminealkoxy, aralkylamine, aryloxyalkylamine, arylaminealkylamine, arylthioalkoxy, arylthioalkylamine, aralkylthio, aryloxyalkylthio, arylaminealkylthio, arylthioalkylthio, alkylamine, cycloalkyl and cycloalkylalkyl and wherein n is 0.

11. (Currently amended) The compound according to claim 44, stereoisomers, tautomers, racemics, ~~prodrugs, metabolites~~ thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X_1 and X_2 are $-OMe$, wherein R_1 and R_2 are $-H$, wherein X_3 participates together with X'_3 in an oxo functional group or are independently selected from the group consisting of hydrogen, hydroxyl, alkyloxy, wherein X_4 is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X_5 and X_6 participates in a double bond between the carbon atoms in position 4 and 5, wherein X_6 is $-H$, wherein X_7 is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, and wherein n is 0.

12. (Currently amended) The compound according to claim 14, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁ and X₂ are -OMe, wherein R₁ and R₂ are -H, wherein X₃ or X'₃ are independently selected from the group consisting of hydrogen, glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-a-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-b-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-b-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-b-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₄ is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-a-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-b-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-b-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-b-D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein X₅ and X₆ participates in a double bond between the carbon atoms in position 4 and 5, wherein X₆ is -H, wherein X₇ is selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltosyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyllactosyl, 2-acetamido-2-deoxy-3-O-a-L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy-b-D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O-b-D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O-b-D-glucosyl-D-galactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O-b-D-galactosyl-D-glucosyl, 3-

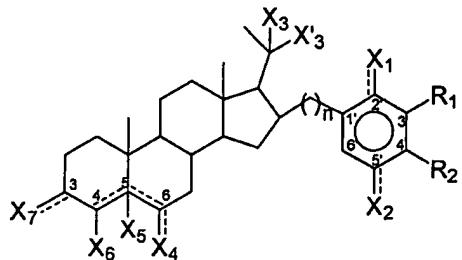
fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof, wherein at least one of X₃ and X'₃ is a glycosyl moiety selected from the group consisting of glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, isomaltosyl, maltoesyl, lactosyl, cellobiosyl, gentiobiosyl, melibiosyl, palatinosyl, lactulosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminyl-lactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, a disaccharide or a trisaccharide thereof glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribuloseyl, xyluloseyl, erythrosyl, erythruloseyl, rhamnosyl, threoseyl, serbosyl, psicosyl, tagatoseyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, taloseyl, psicosyl, idoseyl, gulosyl, altroseyl, alloesyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminaribiosyl, nigerosyl, primeverosyl, rutinosyl, tylexosyl, maltoesyl, lactosyl, sucrosyl, cellobiosyl, trehaloseyl, gentiobiosyl, melibiosyl, turanosyl, sepherosyl, isosucrosyl, raffinosyl, palatinosyl, lactulosyl, gentianosyl, 3-mannobiosyl, 6-mannobiosyl, 3-galactobiosyl, 4-galactobiosyl, maltotriosyl, maltotetraosyl, isomaltotriosyl, maltohexaosyl, maltoheptaosyl, sicosyl, panesyl, isopanesyl, inesyl, N-acetylgalactosaminyl, mannotrioseyl, globotrioseyl, erlesyl, neotrehaloseyl, chitobiosyl, chitobiosemannosyl, glucosaminyl, N-acetyl glucosaminyl, octylglucopyranosyl, ectyribofuranosyl, cyclohexylglucopyranosyl, cyclohexylxylofuranosyl, benzylglucopyranosyl, benzylarabinofuranosyl, N-acetyl lactosaminyl, acosaminyl, amicetosyl, amylosyl, apiosyl, arcanosyl, ascarylosyl, basilosaminyl, beivinesyl, celletrioseyl, chacetrioseyl, chalcosyl, cladinosyl, colitosyl, cymaresyl, daunesaminyl, desosaminyl, D-glycero-L-gulo-heptosyl, diginosyl, digitalessyl, digitoxesyl, evalesyl, evernitroesyl, foresaminyl, fucosaminyl, garosaminyl, hamamelosyl, isolevoglucosenonyl, kanesaminyl, kansesaminyl, lactesaminyl, lactosedihaminyl, fucitolyl, maltoesyl, mannosaminyl, melezitesyl, mycaminosyl, mycariosyl, mycinosyl, mycosaminyl, noviosyl, oleandrosyl, paratosyl, perosaminyl, planteesyl, pneumosaminyl, purpuresaminyl, quinoivosaminyl, quinoivosyl, rhamnitolyl, rhamnosaminyl, rhodinosyl, rhodesaminyl, sarmentesyl, celatiosyl, stachyosyl, streptosyl, umbelliferosyl, trehalosaminyl,

Application No.: 10/582,121
Filing Date: June 8, 2006

~~1,6-anhydro-D-glucopyranosyl, 1-hydroxy-a-D-allopyranosyl, 2,3:5,6-di-O-isopropylidene-D-mannofuranosyl, 2-amino-2-deoxy-D-galactitolyl, 2-deoxyribosyl, 2-deoxyglucosyl, 5-amino-5-deoxy-D-glucopyranosyl, 6-deoxy-D-galactitolyl, 2-amino-2-deoxy-glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy-galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy-mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 2-amino-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, 6'-N-acetylglucosaminylgalactosyl, 2-acetamido-2-deoxy-3-O- α -L-fucosyl-D-glucosyl, 6-O(2-acetamido-2-deoxy- β -D-glucosyl)-D-galactosyl, 2-acetamido-2-deoxy-3-O- β -D-galactosyl-D-glucosyl, 2'-acetamido-2'-deoxy-3-O- β -D-glucosyl-D-galactosyl, 3-fucosyl-D-lactosyl, 3-fucosyl-2-acetamido-2-deoxy-4-O- β -D-galactosyl-D-glucosyl, L or D isomers thereof, α or β form thereof, pyranuronic or furanuronic form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate or benzoyl derivatives thereof, amino derivatives thereof, amido derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxy, alkyloxycarbonyl, carbonyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminealkyl, aralkoxy, alkylthio, alkoxyl, aryloxyalkoxy, arylaminealkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminealkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl and wherein n is 0.~~

13. (Currently amended) A compound of formula I, stereoisomers, tautomers, racemics, prodrugs, metabolites thereof, or a pharmaceutically acceptable salt and/or solvate thereof, wherein X₁, X₂, X₃, X'₃, X₄, X₅, X₆, X₇, R₁, R₂ and n are selected as indicated in Table A.

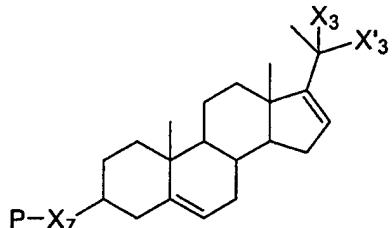
14. (Currently amended) A method for synthesizing a compound comprising of the structural formula I



formula I

wherein X_1 , X_2 , X_3 , X_4 , X_5 , X_6 , X_7 , R_1 , R_2 and n are independently selected from the group as indicated in claim 14, said method comprising the steps of

a) providing a starting material comprising of the structural formula IV,



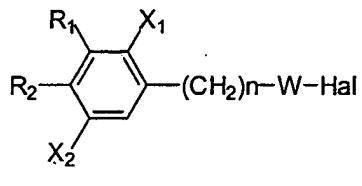
formula IV

wherein X_3 participates together with X'_3 in an oxo functional group, or wherein X_3 and X'_3 are independently selected from the group consisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het^1 alkyl, alkyloxycarbonyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het^1 , optionally substituted by one or more substituents independently selected from the group consisting of alkyl, aralkyl, aryl, Het^1 , Het^2 , cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X_7 is selected from the group consisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het^1 , Het^1 alkyl, Het^1 aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl optionally substituted by one or more substituents independently

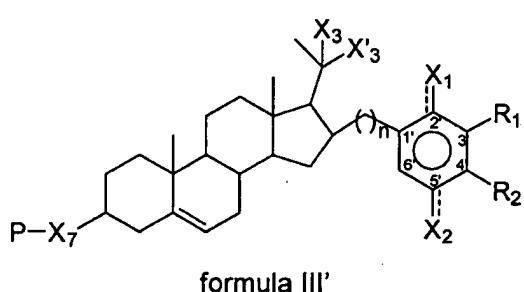
selected from the group consisting of alkyl, aralkyl, aryl, Het¹, Het², cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted wherein the substituents are independently selected from the group consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl; and wherein P is a protecting group,

b) effecting reaction between the compound of step a) with an organometallic compound comprising the of structural formula V



wherein X₁, X₂, R₁, R₂ and n are independently selected from the group as indicated in claim 44, wherein W is a metal or a combination of metals and wherein Hal is a halogen atom,

to result in an intermediate comprising the of structural formula III'



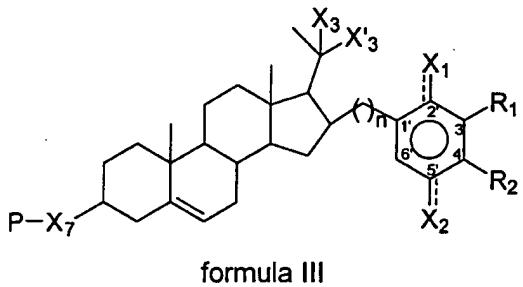
wherein X₁, X₂, R₁, R₂ and n are independently selected from the group as indicated in any of claims 1 to 13 4, wherein X₃, X'₃, X₇ are independently selected from the group as indicated in step a) and wherein P is a protecting group,

c) effecting reaction between the compound of step b) with an organometallic compound comprising of the structural formula VI

Hal-W-X'₃
formula VI

wherein X'₃ is selected from the group as indicated in step a), wherein W is a metal or a combination of metals, and wherein Hal is a halogen atom,

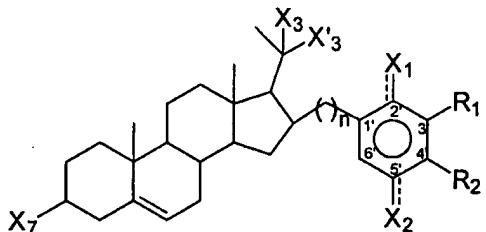
to result in an intermediate comprising the of structural formula III



formula III

wherein X₁, X₂, R₁, R₂ and n are independently selected from the group as indicated in claim 44, wherein X₃, X'₃, X₇ are independently selected from the group as indicated in step a), wherein P is a protecting group,

d) deprotecting the X₇ group of the compound obtained in step c) to form an compound comprising the of structural formula II



formula II

wherein X₁, X₂, R₁, R₂ and n are independently selected from the group as indicated in claim 44, wherein X₃, X'₃, X₇ are independently selected from the group as indicated in step a), and

e) coupling an O-protected glycosyl or non-protected glycosyl to form a compound of formula IIB wherein X₁, X₂, R₁, R₂ and n are independently selected from the group as indicated in claim 44, wherein X₃ and X'₃ are independently selected from the group as indicated in step a), and X₇ is an O-protected glycosyl or a non-protected glycosyl, and

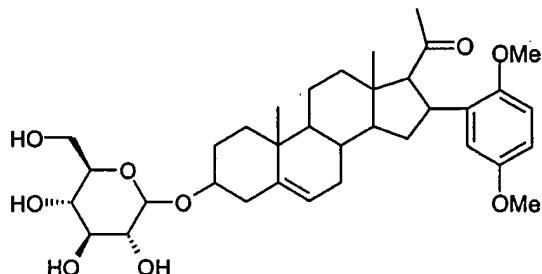
f) deprotecting the O-protected groups of glycosyl to form a compound of formula IB wherein X_1 , X_2 , X_4 , X_5 , X_6 , R_1 , R_2 and n are independently selected from the group as indicated in claim 14, wherein X_3 , X'_3 are independently selected from the group as indicated in step a), and X_7 is selected from the group consisting of glycosyl, thio derivatives thereof, amino derivatives thereof, amido derivatives thereof, hydroxyl-protected derivatives thereof.

15.(Previously presented) The method according to claim 14, wherein step e) consists of reacting the compound of step d) with an oxidizing reagent to form an intermediate and reducing said intermediate with a reducing reagent to result in another intermediate comprising the structural formula I.

16. (Previously presented) The method according to claim 14, wherein step c) consists of reacting the compound of step b) with an O-protected glycosyl or non-protected glycosyl to result in an intermediate comprising the structural formula III.

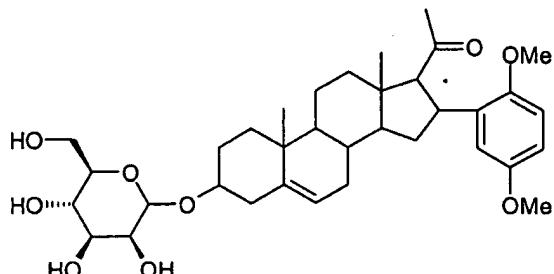
17. (Cancelled)

18. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS3268**

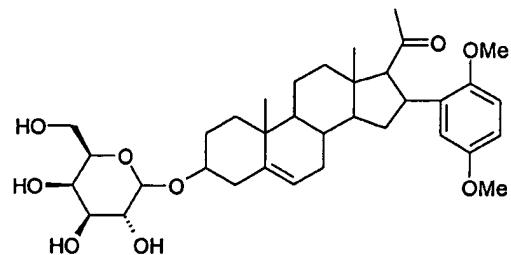
19. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS3270**

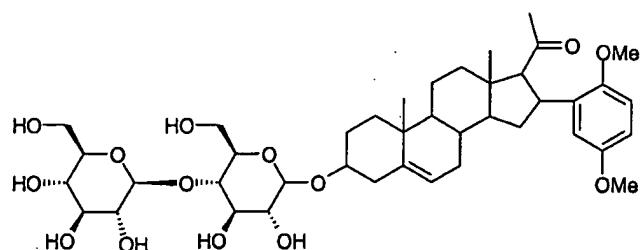
20. (Currently amended) The compound according to claim 14, of structural formula:

Application No.: 10/582,121
Filing Date: June 8, 2006



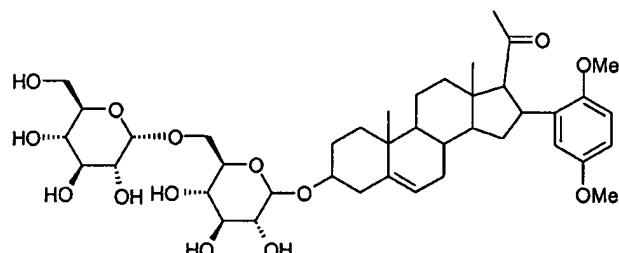
herein designated as compound **UBS3285**

21. (Currently amended) The compound according to claim 14, of structural formula:



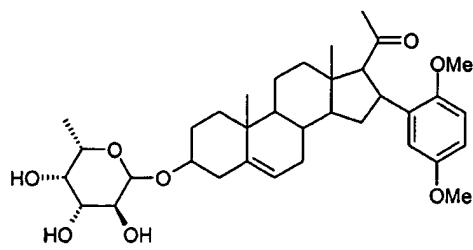
herein designated as compound **UBS3327**

22. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS3328**

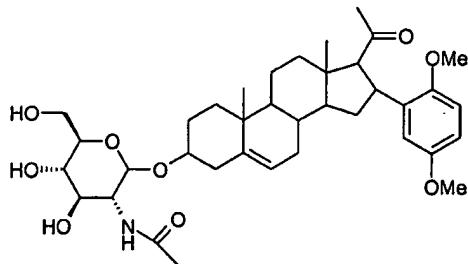
23. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS3501**

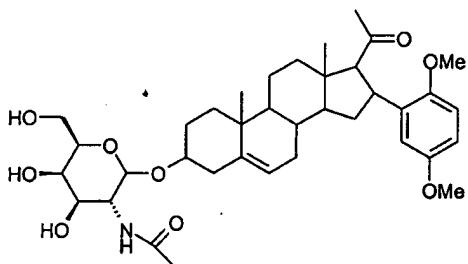
24. (Currently amended) The compound according to claim 14, of structural formula:

Application No.: 10/582,121
Filing Date: June 8, 2006



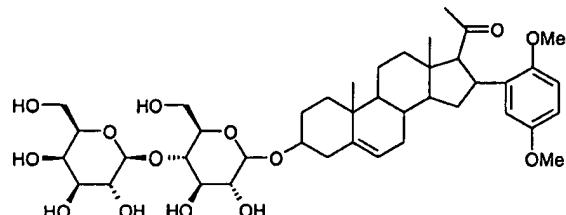
herein designated as compound **UBS3585**

25. (Currently amended) The compound according to claim 14, of structural formula:



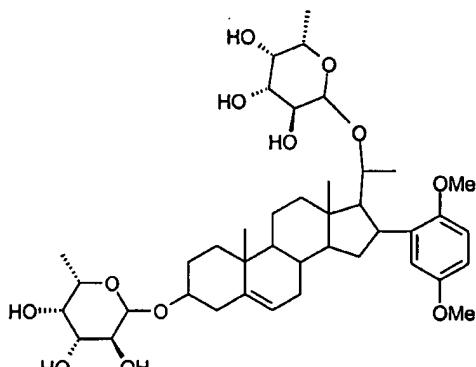
herein designated as compound **UBS3597**

26. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS3976**

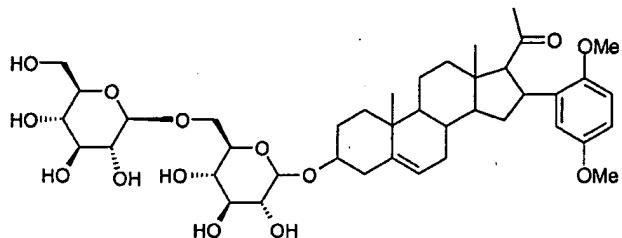
27. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS4066**

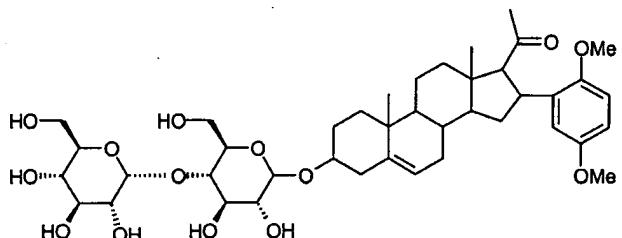
28. (Currently amended) The compound according to claim 14, of structural formula:

Application No.: 10/582,121
Filing Date: June 8, 2006



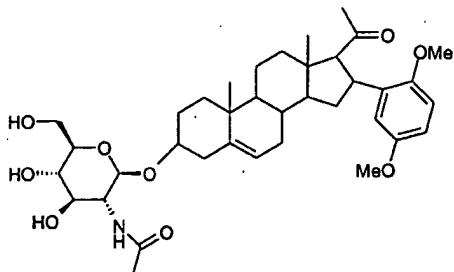
herein designated as compound **UBS4067**

29. (Currently amended) The compound according to claim 14, of structural formula:



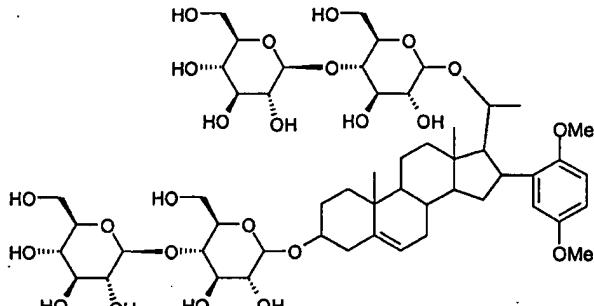
herein designated as compound **UBS4095**

30. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS4104**

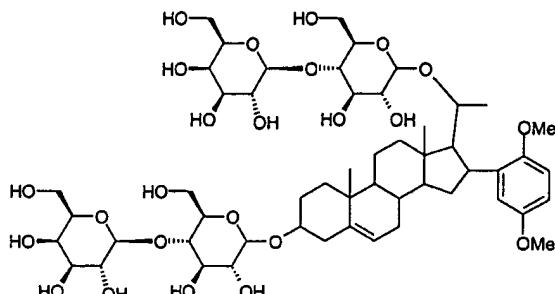
31. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS4109**

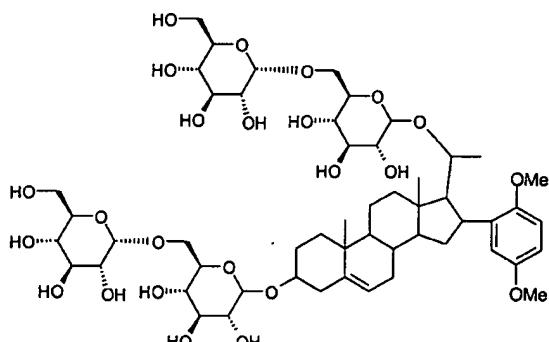
32. (Currently amended) The compound according to claim 14, of structural formula:

Application No.: 10/582,121
Filing Date: June 8, 2006



herein designated as compound **UBS4209**

33. (Currently amended) The compound according to claim 14, of structural formula:



herein designated as compound **UBS4373**

34. (Cancelled)

35. (Cancelled)

36. (Currently amended) A method for treating cancer which comprises administering a compound according to claim 14 to an individual in need thereof.

37. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to claim 14.

38. (Cancelled)

39. (Previously presented) A method of treating cancer comprising administrating to an individual in need of such treatment a pharmaceutical composition according to claim 37.